

**AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES  
MADE, AND LISTING OF ALL CLAIMS WITH PROPER IDENTIFIERS**

1. (Canceled)
2. (Currently amended) The method of claim ~~[[1]]~~ 3, wherein the semiconductor sample is made of gallium nitride.
3. (Currently amended) ~~The A method of claim 1~~ for photo-electrochemically etching a semiconductor sample, comprising the steps of:  
bringing a semiconductor sample in contact with an electrolyte liquid,  
thereby forming a contact area,  
irradiating the contact area of the semiconductor sample[[,]] wherein  
~~the contact area is irradiated~~ repeatedly through the electrolyte liquid with UV light irradiation ~~of said UV light~~ for a predetermined time, whereby a waiting time is generated between each of said UV light irradiations, thereby generating a photo current during each of said UV light irradiations,  
measuring the photo current, and  
repeatedly subjecting the contact area to a ~~and wherein said jet of~~ fresh electrolyte liquid, wherein said jet of fresh electrolyte liquid is applied to said contact area in said waiting time between two of said UV light irradiations.
4. (Original) The method of claim 3, wherein the predetermined time is between 5 and 20 seconds.
5. (Original) The method of claim 3, wherein the predetermined time is 10 seconds.

6. (Original) The method of claim 3, wherein the waiting time is in the range between 1 and 10 seconds.
7. (Original) The method of claim 3, wherein the jet of fresh electrolyte liquid is applied at the start of the waiting time.
8. (Currently amended) The method of claim [[1]] 3, wherein the jet of fresh electrolyte liquid is created by a pump in form of a pressure surge.
9. (Currently amended) The method of claim [[1]] 3, wherein the semiconductor sample is held replaceable in a vertical position.
10. (Currently amended) The method of claim [[1]] 3, wherein the contact area has a diameter of 1 to 4 mm.
11. (Currently amended) The method of claim [[1]] 3, and further comprising the steps of providing a reference electrode at the semiconductor sample, and applying a voltage of -0.5 V to +0.5 V between the semiconductor sample and the reference electrode.
12. (Currently amended) The method of claim [[1]] 3, wherein the jet of fresh electrolyte liquid is applied for 0.1 to 2.0 seconds to the contact area.
13. (Currently amended) The method of claim [[1]] 3, wherein the electrolyte liquid is an aqueous diluted caustic potash solution (KOH) having a concentration in the range of 0.002M to 0.1M.
- 14.-38. Canceled)